Amendments to the Specification

Please replace the paragraph at page 4, line 1, with the following amended paragraph:

~~Figure 7 is~~ Figures 7A-7C represent a circuit diagram illustrating atmospheric sensors;

Please replace the paragraph at page 4, line 2 with the following amended paragraph:

~~Figure 8 is~~ Figures 8A-8C represent a circuit diagram illustrating a gain compensation module;

Please replace the paragraph at page 7, lines 17 through 23 with the following amended paragraph:

The control unit (see ~~Figure 7~~ Figures 7A-7C) contains a microcontroller and associated circuitry that powers up the cargo detector on a predetermined schedule, and commands a collection of measurements using the three modes identified above. The detectors return the three measurement values, and the control unit uses those measurements to make an assessment as to whether the container space is loaded or empty. For the control unit application, there is additional filtering that is done in the logic to ensure a load change has occurred.

Please replace the paragraph at page 9, lines 15 through 18, with the following amended paragraph:

The cargo detection module 406 may be controlled by control circuit 902 (see ~~Figure 7~~ Figures 7A-7C). A microprocessor (microcontroller) 702 is the main component of the control circuit 902, and connected to it are humidity and temperature sensors 706 and 704, correspondingly, and various other amplifier and power components.

Please replace the paragraph at page 9, lines 15 through 18, with the following amended paragraph:

Illustrated in ~~Figure 8~~ Figures 8A-8C is the electronics for gain compensation for the atmospheric absorption. The transducer signal of interest is selected from the input signal 802 using a series of Field Effect Transistors (FETs). The signal passes through three stages of fixed gain amplification before going through a fourth, variable-gain stage. The potentiometer is used

to set the resistor divider on the feedback path on the fourth stage, which allows for setting the gain of the fourth stage in the range between 6db and 44db.